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ABSTRACT

This paper analyzes content and design of 120 school media center World Wide Web sites. The study's purposes were to develop a list of criteria for use in developing media center Web sites and to compare Web sites by author type to determine if differences exist in incorporation of criteria. The sites were analyzed on June 17 and 18, 2000 using criteria from information and library science, media center promotion, and Web page design literature. The findings show that: Web sites meet most design criteria, but not many other criteria; and media specialists' Web sites do a better job of promotion than those authored by others. In general, media center Web sites do not promote the media center or specialist. Contains 27 references. (Author/MES)

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USING THE INTERNET TO PROMOTE THE SCHOOL LIBRARY MEDIA CENTER

by
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A Master's paper submitted to the faculty
of the School of Information and Library Science
of the University of North Carolina at Chapel Hill
in partial fulfillment of the requirements
for the degree of Master of Science in
Library Science

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INTRODUCTION

Information Power: Building Partnerships for Learning states that "clear communication of the mission, goals, functions and impact of the library media program is necessary to the effectiveness of the program" (112). To attain such communication, the library media specialist must maintain current knowledge of items that may impact student learning; regularly report program plans, policies, and achievements to the learning community, which includes parents, teachers, and administrators; develop an effective advocacy program; and use a variety of formats to inform the learning community of resources, activities, and services and to promote the program throughout the school and local community (AASL/AECT).

One way for the media specialist to achieve these goals is to use the Internet as a publicity tool. The media specialist can showcase knowledge, program plans, policies, and achievements, and use a variety of formats, including written, verbal, and visual, using basic HTML, multimedia technology, and the Internet.

My interest in the Internet as a tool for publicizing the media center began in a graduate class, where I first heard the story of massive media center closings in California in the early 1990's (Lamolinara, 349). I began to wonder whether promoting the media center and its role in the school on the Internet might have helped prevent some of the media center closures. Some of the questions I posed during my research were:

(1) Do school library media centers use the web as a promotional tool?

(2) For those school web sites that have media center web pages, how much promotional material exists on those pages? and

(3) Is there a difference in the level of promotion and the quality of design between web pages designed by the school library media specialist and those designed by persons other than the media specialist?

To answer these questions, a content and design analysis of school library media web pages was conducted.

LITERATURE REVIEW

The bodies of literature reviewed for this study included those in general marketing, promotion and distribution, web page design, and school library media center promotion and advocacy.

An understanding of the general principles of marketing may help to illuminate the need for school library media center promotion on the Internet. Wagner defines marketing as encompassing "a range of tactics, such as handing out small gifts bearing the organization's logo, maintaining a presence at trade shows or on the Internet, and providing superior customer service and product support." Marketing entails the examination of what is and is not working in the organization's promotions and identification of what the organization does well in gaining and maintaining customers (56).

In common parlance, the term marketing is often used solely for promotion and publicity. Morgan states that promotion and publicity are just two aspects of the marketing process, which also includes product or service development, pricing, and distribution (50). Marketing has been defined as "an exchange of value in which both parties gain something, and virtually any organization – even a university or a

government or a church – is involved in offering value to a group of constituents" (Brown, 181). Olson and Moseman state that "promotion methods – [can include a] newsletter, Web site, business cards, flyers, and so on" (20).

Promotion, the primary focus of this paper, means using the tools of public relations, such as advertising, publicity, persuasion, and personal selling (Jose, 233; Patnaik, 192; Rowley, 385). Promotion is the concept most widely discussed and practiced by library professionals. Weingand states that communication is the foundation of promotion (134).

Publicity, a type of promotion sometimes also referred to in the literature as public relations, can be defined as presenting an organization's image to the media in a controlled way. This involves determining who buys its product or service and knowing what, if any, outside influences there are on these individuals (Wagner, 57). For the school and the SLMC, buying may be thought of as financial support in the form of bond issues and/or grant monies. Outside influences may be such things as items competing for tax money and other forms of schooling competing for students. Flowers defines public relations as "our efforts to gain and maintain support for library media center programs, and our efforts to promote and encourage the use of library media center services" (2). Providing a web site for the SLMC may aid in accomplishing both of these goals. We may gain and maintain support by publishing our efforts and achievements and encourage use of library media center services by publishing what we have (products) and what we can do for the patron (services). Duggan & Deveney claim that public relations for online information differs little from that of traditional PR (59).

While "some librarians argue that public relations is not necessary because we have a captive audience, or guaranteed funding, or others should handle public relations functions, or that it is the role of librarians to serve, not to promote," (Cihak, 23) it may be this belief that causes libraries to close and merge. Library goals can be better achieved if librarians promote their products and services to the population and build good will for the library.

In her article "Marketing Strategies," Ann Wolpert explains the need for brand management in the academic research libraries, libraries that once held a "quasi-monopolistic status" (4). As with the academic libraries discussed in Wolpert's article, school library media centers, too, face a real threat of cannibalization. Principals, teachers, and even media specialists themselves often confidently proclaim that the Internet replaces the need for traditional materials. In addition to the threat that the Internet may pose, there are many alternative programs to traditional schools with library media services including private schools, schools of choice, vouchers, charter schools, and home schooling (Wright & Davie, 16-25). Many of these alternative programs lack library media services. Wolpert addressed the matter of cannibalization when she suggests libraries identify themselves:

> ...as super-ordinate providers of information resources and services, rather than as managers of books and journals. Managing books and journals is no less important than it have (sic) been in the past. It is, however, insufficient if a library is to maintain its brand equity in the face of competition from the WWW and other emerging information providers (6).

When a school library media center (SLMC) identifies itself in this way, it may no longer be seen as dispensable when funds are cut.

A recent series of workshops by the Colorado Library Marketing Council encouraged school library media specialists to "adopt an 'internal locus of control' – i.e., to understand that the status of their positions can be attributed largely to factors under their own control" (Colorado Department of Education, 1). Eighty-five percent of the participants who answered a follow-up survey indicated that they had performed market research and changed the way they work because of it. Changes in the way the media center does business has had an impact on how teachers and, to a lesser extent, administrators see the library media specialist's position. Seventy percent say that teachers see them as more essential than they did before although only 30% could say that administrators see them as more essential (2). This increase in teacher and administrator perception of the importance of the school library media program highlights the importance of market research and public relations. Yutzey concurs, calling marketing and public relations planning "one of the most critical responsibilities facing the school media specialist today" (23).

Elementary and secondary school libraries constitute the largest group of public libraries in the nation, accounting for about 78 percent of the total yet they are in the poorest condition. According to a study performed during the 1992-93 school year, one in four public school libraries has no librarian, half the elementary school libraries bought less than one book per student, half the secondary school libraries bought less than 1/3 of a book per student, and 20 percent had world atlases dated prior to 1989 (Speer, 48).

Kirchner offers these helpful tips for library advocacy: break the librarian stereotype, capitalize on strengths and knowledge, promote services and products, focus on information literacy, "highlight that librarians do more than worry about whether or

not books are properly shelved. Stress the role of librarians as providers of information, as instructors who encourage learning, and as global professionals who can quickly and efficiently access resources from around the world" (845-6).

In "Marketing Your Valuable Experience," Abram suggests that librarians promote their professional skills by publishing their biography, talents, education, and experience, "team", picture, professional work, publications, selected assignments, and the feedback they have received in the past. He chides librarians for their modesty and shyness (88).

Some of the tips provided in "Survival Strategies" include publicizing the job description, publishing a library brochure, meeting the needs of all students, and making cooperative planning easy for teachers (Miller, S., et al, 25-7). All of these tips may be made more effective using the Internet. Miller et al suggest that librarians "circulate it [the job description] with pride" (25). Greater circulation of a job description can be achieved if it is a part of an SLMC web site. Weiss suggests publishing a newsletter including such tips as the library use plan, CD-ROM cheat sheets, samples of bibliographic citations, subject area research hints, and lists of award-winning books. She even says "putting them on a school web page should be a snap" (25). McCarron details a scenario in which all the students in a class want the same material for an assignment due the next day. The library's materials had been checked out on a first-come, first-served basis because the librarian was unaware of the assignment. She created a form for teachers to fill out as a collaboration aid. The form worked well and the teachers liked it (27). Publishing a similar form on the school library media center's web site could be beneficial.

Using the Internet as a distribution channel allows for interactivity between audience and web site. According to Cooley, increased interaction with the public provides an opportunity to improve the organization's image, makes data collection easier, allows mapping of the organization's agenda to the public's needs, and leads to an increase in organizational accountability. Interactivity can be added to a web site via a forum for comments and suggestions from the audience(s) and providing information on programs, policies, and community involvement. A truly interactive web site provides access to information and ability to give feedback 24 hours a day, 7 days a week. The web sites rated with the highest amount of interactivity provide online chat capability (41). Ihator also mentions interactivity as a benefit to online media such as the Internet (30). Morgan suggests using sophisticated feedback mechanisms such as electronic surveys and web-based suggestion boxes in what he referred to as "future libraries" (50). Rowley considers promotion a two-way communication (383) that can be facilitated through the use of interactive communications on the Internet.

Another characteristic of interactivity is greater access to the media center by other people in addition to the traditional school population. Among the recommendations provided by de Sàez are access and good public relations (9). According to de Sàez, one aspect of good public relations is that of presenting information and asking for feedback (10). Yutzey equates media center promotion with a marketing plan and calls distribution "the system which provides the information requested by the consumer" (15). Distribution equates to ease of access and use of information from the media center. Promotion on the Internet allows for optimum

distribution of information, thus increasing the channel of distribution by orders of magnitude.

Given the specialized nature of the media specialist's audience, library media specialists may still question the need to use the Internet as a distribution medium. The number of Internet users is increasing exponentially each year and is expected to be around 300 million by 2005 (Duggan & Deveney, 58). What this means for schools and for school library media centers is an ever-expanding channel of distribution for their information. It is important that media specialists recognize the value of the Internet as a tool for promoting the media center's products and services.

Laurel Clyde suggests that there are educational and management reasons associated with the need for school library media center web pages. The creation of a home page involves high order information skills, so it is a logical fit for the school library media specialist, a school library media center web page can be used to promote the collections and services and special activities, publish bibliographies, book reviews, and pathfinders, and to make the online catalog available. Not being involved in the creation of the web page is a loss of opportunity to promote the school library media center (287-95).

Carpenter and Dodsworth agree, stating that the Internet could be used to publish the online catalog, provide a calendar of scheduled events, provide online access to library publications, and maintain Internet directories tailored to community needs and interests (Carpenter, 64; Dodsworth, 321).

A school library media center is, in effect, a business. In the corporate world, when traditional promotions are not effective, the Internet can be used to beef up

promotions by focusing on relationship creation and the creation of a "distinct online presence." In the case of Ralston Purina, this presence resulted in the company's tripling its goal of 1,000 visitors creating dog home pages, achieving double the industry standard of time online at a site at 12 minutes, and surpassing the original goal of monthly user sessions by 600 percent. After six months, web site visitors' expressions of intent to purchase increased significantly, according to an attitudinal study conducted by the company (Ralston Purina, 244).

A school web site can introduce visitors to the school, point visitors to information on the Internet, provide students with an opportunity to publish their work, and provide a bridge to parents, local businesses, and community organizations (Holly). The same rationale used for publishing school web sites can apply just as easily to the school library media center.

Once the decision has been made to publish promotional materials using the Internet, Carpenter provides two general recommendations for web site publication: (1) keep patron needs in mind and (2) submit the web site to search engines that the target audience is likely to use (63).

When the needs of the patron are foremost in mind, both software and hardware requirements should be considered. If the majority of the media center's patrons do not have access to the special software needed to view the site, the site should not be published using that special software. If many of the patrons are using slower modems, a graphic-intensive web site without a text-only alternative or thumbnails for photographs will only frustrate and, possibly, alienate these patrons. Publishing photographs as thumbnails gives patrons the choice of downloading the larger photograph without

interfering with the loading time of the original page. Sammons refers to this criteria as accessibility (42).

Patrons will have an easier time finding a web site if it is published with the search engines and directories (Carpenter, 63; Peppriell, 22). Most search engines and directories provide this service free of charge. Also, getting the organization's web site linked to places that the target audience frequents increases traffic to the site. Sometimes, this is as simple as a request to the web site's publisher. Holtz suggests that meta tags, that is, HTML tags that provide information unseen to the user but seen by the search engine, be used to direct search engines to the site (255).

Peppriell provides a list of steps for developing a web site from a marketing perspective. She recommends that the author have a clear idea of what is to be accomplished. Sections of the web site may include a *splash page*, which she refers to as a "billboard introducing the site;" a *home page*, which is a brief welcome introducing the organization's specializations; *about the company*, which consists of the organization's profile; *products and services*, which is the place to break geographic boundaries and expand the customer base; *customer services*, which provides existing clients with assistance and keeps them coming back for more; and *contact information*, which makes it easy for individuals to get in touch with the organization. She also suggests that the designer visit other web sites. Similar organizations may provide good models after which to pattern a site. The web site should be brief and only provide valuable data. As a general rule, there is only a three-second window in which to capture a browsing customer's attention (23). Sammons calls this feature simplicity (43).

Holtz enumerates general design concerns for publishing to the Internet including length, style, and navigation. Guidelines for length include filling only one screen, if possible but no more than two "page-downs." Offering links to related information keeps the length down and makes it easier for the reader to retrieve only what is wanted. The number of hyperlinks should be kept down to keep from disrupting the flow of the document. Style guidelines include maintaining a conversational style, which is preferred by online readers, using lists and bullet points when possible, and using short sentences if a narrative approach is used with sparing use of emphatics such as boldface and italicized types. Sammons calls these qualities readability and restraint (43).

Navigation elements should be used to guide readers to a specific section of the document such as the beginning, a previous chunk of information, the next chunk of information, an index or table of contents, a search engine, or the home page of which the document is a part (274). Research performed by Tenissara of Indiana University about tables of contents and frames shows that the user's performance is not more accurate using multiple frames or an expandable table of contents and that the user's speed of access is not increased using multiple frames or an expandable table of contents. When perceived degree of disorientation was measured, however, there was a significant difference between users of the expandable table of contents versus the traditional table of contents with users feeling less disoriented using a traditional table of contents. The same finding was discovered with single versus multiple frames (79-80). The author may also choose to include a site map.

To establish credibility, the author should include the names of the sponsor of the web site and the author, an email link to the author, date of distribution, revision date(s),

if any, and any other information that can be provided to reflect the document's currency (Holtz, 274-5).

To summarize, marketing consists of product, pricing, place, and promotion. Promotion is the aspect of marketing most often discussed and addressed in school library literature. One possible distribution channel for promotional materials is the Internet. To date, the literature consists mainly of prescriptive suggestions with no empirical evidence to support them. These criteria have been synthesized for use in designing and/or analyzing web sites that include promotional material. For the purposes of analysis in this study, the criteria have been grouped as advocacy, content, level of interactivity, and design.

PURPOSE OF THE STUDY

The purpose of this study is to perform a content and design analysis of randomly selected SLMC web sites. The questions answered by this study are (1) what content and design elements are present on the pages analyzed? (2) is there a significant difference in content and design of pages that were developed by the school library media specialist and those developed by individuals other than the school library media specialist? (3) how do the school library media center web pages compare in the use of the criteria synthesized from the literature and listed in Appendix A?, and (4) how well do the web pages do in promoting the school library media center?

A goal of this study is to provide school library media specialists with guidelines for promotion of the school library media center on the Internet. These guidelines can serve as a checklist for the school library media specialist who is planning development

of a web page or the one who is planning to revise an existing one with a bent toward promoting the school library media center as the school's information hub and the specialist as information professional.

METHODOLOGY

Using the Galtung Cell Size Method of determining sample size, 120 school library media center web sites were drawn randomly from the Hot List of K-12 Internet School Sites – USA, formerly located at http://rrnet.com/~gleason (updated address as of June 26, 2000 is http://teacher-pd.classroom.com/library/states.asp) (Clark, 417). A table of random numbers was used to draw the sample (Babbie, A32-A33). One criterion was that the web site selected have an explicit link to the school library media center. Web sites with links to the library, LMC, instructional materials center, IMC, learning resources center, or LRC were also accepted. A count was made of sites that were determined to be invalid either because of an inactive link, an unresponsive link, or a school web page that did not have an explicit link. This was used in calculating percentages (e.g. percentage of school web sites that have links to the media center) but the sites were not included when determining the final sample size. When an invalid link was found, the next web site on the random number list was tested for validity until a valid site was found. The sampled web sites were then separated into three categories: media specialist-authored, non-media specialist-authored, and author unknown. Author unknown web sites were limited to the extent possible by a thorough investigation of the school's domain, when available.

The evaluation criteria were subdivided into the categories of advocacy, content, interactivity, and design (ACID). An extensive list was developed using criteria taken from the literature. These criteria were incorporated into the analysis instrument (see Appendices A and B). Each web site contained in the sample was used to answer the questionnaire and was assigned a score for each of the subdivisions in addition to an overall score on the ACID scale.

The scale created for level of interactivity was based partly on a scale created by Cooley, who analyzed corporate web sites in terms of interactivity. Her scale is (1) 25% interactive for those sites that included company contact information, (2) 50% interactive for sites that included company contact information for specific concerns, (3) 75% interactive for sites that included surveys on effectiveness of web site and company practices, and (4) 100% interactive for sites that included a forum for online interactions (42). These percentages translate easily to a scale of 1 point for general contact information, 2 points for specific contact information, 3 points for surveys, and 4 points for a chat forum. For the purposes of this study, item 1 on Cooley's scale has been modified to indicate those sites that provide mailing addresses with no electronic mail option and her item 2 has been modified to indicate those sites that provide for electronic mail. A simple, non-weighted index was created for the categories of advocacy, content, and design (Babbie, 169).

Using Jacobson's development of a rating scale as a guide, an average performance value was calculated for each index (7). For the category of interactivity, Cooley's scale was used; a score of 2 (50% interactive) was considered to be the average score, although scores as high as 10 could be achieved in this area (42). The minimum

scores for average performance in the advocacy, content, and design scales were 5, 7, and 8 respectively. A score of 22 on the ACID scale was considered average.

To increase the reliability of the survey instrument, a pilot test of the instrument was performed. The author and a test group of three graduate students with varying educational interests and backgrounds reviewed the same random sample of 5 web sites and scores were compared. When there was disagreement on a variable, two of the three member of the test group were found to be in agreement with the author. This was sufficient to conclude that the author could perform independent evaluation of the sample.

The hypotheses tested were that web sites created and designed by library media specialists would (1) do a poor job of promoting the media center as information hub and the specialist as information professional as indicated by a mean score of less than 5.0 on the advocacy scale as would non-media specialist web sites, (2) contain more promotional content than those created by non-media specialists as indicated by a higher mean score on the content scale, (3) have a better design than those designed by non-media specialists as indicated by a higher mean score on the design scale, and (4) do a poor overall job of promoting the media center and specialist on the Internet as indicated by a mean score of less than 22.0 on the overall ACID scale as would non-media specialist web sites.

RESULTS OF THE STUDY

The number of web sites analyzed in order to obtain a viable sample of 120 was 573. Of these, 286 (49.9%) had no explicit link to the media center. Another 125

(21.8%) were inactive and 42 (7.3%) were nonresponsive at the time of sample gathering (Figure 1).

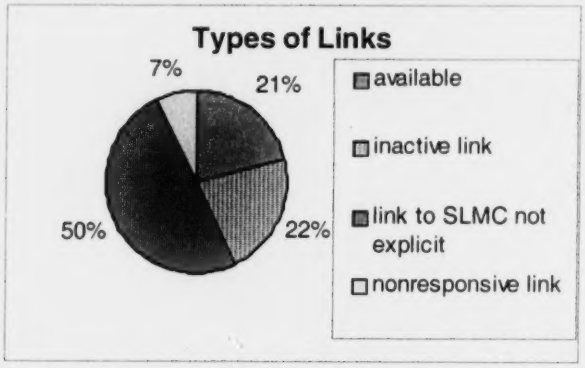

Figure 1. Percentage of Web Sites by Types of Links Sampled

The school library media center web sites were classified by authorship to determine whether media specialists or non-media specialists were responsible for the site. Thirty-five (29%) of the web sites did not indicate authorship and the authorship could not be readily determined by an investigation of the host URL. Non-media specialists authored 40 (33%) sites, media specialists authored 37 (31%), and 8 (7%) of the sites were inactive or invalid at the time of analysis and, therefore, are missing data. Figure 2 illustrates the breakdown of authorship.

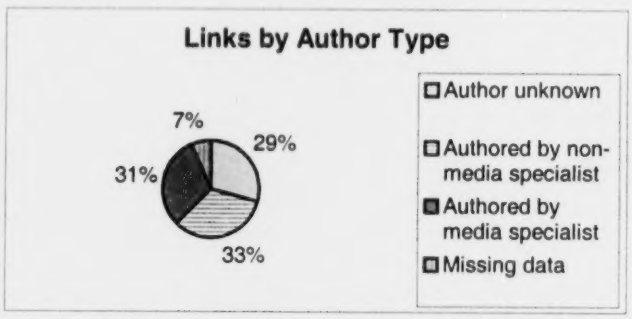

Figure 2. Percentage of Web Sites by Author Type

Due to missing data of 8 web sites, the actual sample size is 112 (see Appendix C for the list of sites used).

Advocacy

The hypothesis for advocacy is that the authors of school library media web sites do a poor job, as do non-media specialist web sites, of promoting the media center as information hub and the specialist as information professional as indicated by a mean score of less than 5.0 on the advocacy scale. The school library media web sites under study were analyzed in terms of their levels of advocacy for the media center as the information hub of the school and the specialist as information professional. Criteria used are shown in Appendix D.

CRITERIA	NUMBER OF SITES MEETING CRITERIA	PERCENTAGE OF SITES MEETING CRITERIA
Promotes MC Services/Products	62	55.36%
Promotes MS as Info Professional	14	12.50%
MS Job Description	2	1.79%
MS Biography	3	2.68%
MC Assignments	0	0.00%
MS Talents/Education	1	0.89%
MC Team Pic/Info	10	8.93%
MS Photo	13	11.61%
MS Professional Works	1	0.89%
MC Feedback	0	0.00%

Table 1. Advocacy Criteria

Table 1 shows the number of web sites in the sample that met the given criteria for advocacy. None of the web sites analyzed contained media center assignments or feedback about the media center program.

	F	Sig.
Promotes services and products	1.260	.288
Promotes MS as information pro	.622	.539
Job description	.483	.618
Biography	.868	.423
Media center assignments		
Talents, education and experience	1.102	.336
Info/photos of MC team	1.161	.317
Picture of media specialist	.156	.855
Professional work and pubs	1.102	.336
Feedback about MC program		
Advocacy index	.689	.504

Table 2. ANOVA Values for Advocacy Criteria and Index

A one-way analysis of variance (ANOVA) test was used to determine significance levels for each item in the advocacy index and for the index value itself. The values are shown in Table 2 above. None of the items in the advocacy category showed a significance level of $\leq .05$.

The overall mean score for the advocacy index was .946. Mean scores by author type were .771 for author unknown web sites, .950 for non-media specialist web sites, and 1.108 for media specialist web sites. The hypothesis that school library media center web sites do a poor job, as do non-media specialist web sites, of presenting the media center as the information hub of the school and the media specialist as information professional as indicated by a mean score of less than 5.0 on the advocacy index is supported by the data.

Tukey HSD tests were performed to determine whether there is any significant difference between authorship pairs (e.g. media specialist/non-media specialist, media specialist/author unknown). No pair of authors showed significance at the .05 level for the advocacy index or any of the contributing variables.

A positive correlation was found between the advocacy index and authorship with a Pearson's R^2 of .0125. This means that only 1.3% of the variance in advocacy is explained by authorship.

The statistical tests performed for the advocacy portion of the ACID scale show that the authors of school library media center web sites do a poor job of demonstrating the value of the media center and the specialist. There was a small amount of positive correlation between authorship and advocacy.

Content

The hypothesis for the category of content is that media specialists' web sites contain more promotional content than those created by non-media specialists as indicated by a higher mean score on the content scale. The web sites under study were analyzed in terms of the criteria in the content scale (Appendix E).

CRITERIA	NUMBER OF SITES MEETING CRITERIA	PERCENTAGE OF SITES MEETING CRITERIA
OPAC	14	12.50%
Schedule of Events	1	0.89%
Internet Links	73	65.18%
Links Organized	68	60.71%
Library Publications	30	26.79%
Parent Resources	9	8.04%
Community Resources	16	14.29%
Volunteer/Donate Information	2	1.79%
Teacher Resources	36	32.14%
Student Resources	74	66.07%
Introduces to Media Center	60	53.57%
Facilitates Teacher/MS Collaboration	6	5.36%
Updated within last 2 months	26	23.21%
Text Makes Sense	101	90.18%

Table 3. Content Criteria

Table 3 shows the percentage of web sites from the sample that met the specified content criteria. All of the content criteria were met by at least one of the web sites in the sample.

	F	Sig.
Online catalog	1.323	.271
Schedule of events	1.102	.336
Internet links	.465	.629
Links organized	1.308	.274
Library publications	.376	.688
Parent resources	1.806	.169
Community resources	2.985	.055
Volunteer or donate information	2.271	.108
Teacher resources	3.350	.039
Student resources	1.857	.161
Introduces visitors to the media center	2.707	.071
Facilitates teacher/media specialist collaboration	.692	.503
Last updated <2 months ago	.050	.951
Text makes sense when read aloud	2.250	.110
Content scale	3.378	.038

Table 4. ANOVA Values for Content Criteria and Index

ANOVA tests were performed to determine the significance of the content values and the overall content index. The corresponding values are shown in Table 4 above. The significance level was again set at $p \leq .05$. Teacher resources showed significance with a p value of .039, while the other content criteria did not show significance. The overall content index did show significance at $p = .038$.

The mean score for the content index was 4.607. Individual mean scores were 4.057 for web sites where the author was unknown, 4.375 for non-media specialist authored web sites, and 5.378 for media specialist authored web sites. Therefore, the hypothesis that the media specialist web sites contain more promotional content than do non-media specialist sites is also supported.

The relationships between authorship and the content criteria and index were further analyzed with Tukey HSD tests. These tests showed a significance level of .045 in the addition of teacher resources to the web site between unknown authorship and web sites authored by the media specialist. The overall content scale also showed a significance of .045 between sites where authorship was unknown and those that were authored by the media specialist.

A positive correlation was found between the content index and authorship. The Pearson's R^2 is .05, which means that 5% of the variance in the content index can be explained by authorship.

The statistical tests performed for the content portion of the ACID scale show that the web sites authored by media specialists provide more promotional content than those created by non-media specialists. There was a small amount of positive correlation between authorship and content.

Interactivity

The school library media center web sites were analyzed in terms of their level of user interactivity. Appendix F shows the data analyzed for the interactivity level.

CRITERIA	NUMBER OF SITES MEETING CRITERIA	PERCENTAGE OF SITES MEETING CRITERIA
Contact/Full Mailing Address	23	20.54%
Contact/Email	59	52.68%
Online Form(s)	2	1.79%
Chat Forum	0	0.00%

Table 5. Interactivity Criteria

The criteria for interactivity and the percentage of web sites that met them are shown above in Table 5. None of the school library media center web sites analyzed had a chat forum.

	F	Sig.
No interactivity		
Contact full mail	1.704	.187
Contact email	12.222	.000
Online form	.460	.632
Chat forum		
Interactivity level	11.367	.000

Table 6. ANOVA Values for Interactivity Criteria and Index

ANOVA tests were performed to determine the significance of the overall interactivity index. The values are shown above in Table 6. The interactivity level was shown to be significant at < .005 as was contact information with an email address.

The mean score was 1.313. Individual mean scores were .771 for unknown, 1.2 for non-media specialist web sites, and 1.946 for media specialist web sites.

Authorship and interactivity level were analyzed with a Tukey HSD test to determine if there were significant differences between authorship pairs. For the criterion of contact with email, significance was shown between media specialist authored web sites and both unknown authored sites (<.005) and non-media specialist sites (.002). Significance was also shown for the overall interactivity level between media specialist

authored web sites and both unknown authored sites, with a p value of less than .005, and non-media specialist sites, with a p value of .012.

The correlation between interactivity level and authorship was positive with an R^2 of .17. This means that 17% of the variance in the interactivity index is explained by authorship.

Statistical tests performed for the interactivity level of the web sites show that the provision of an email address differs significantly by author type. The overall interactivity index also showed significance. The correlation between the index and authorship is positive with 17% of the variance explained.

Design

The hypothesis for the design criteria is that web sites designed by media specialist have a better design than those designed by non-media specialists as indicated by a higher mean score on the design scale. The design criteria analyzed and their corresponding response values are shown in Appendix G.

CRITERIA	NUMBER OF SITES MEETING CRITERIA	PERCENTAGE OF SITES MEETING CRITERIA
No Software Requirements	112	100.00%
Loads within 30 seconds	88	78.57%
Photos thumbnailed	78	69.64%
Text Chunked	67	59.82%
Navigation to Previous	1	0.89%
Navigation to Next	1	0.89%
Navigation to Home	55	49.11%
Index/Table of Contents	51	45.54%
Navigation to Top	7	6.25%
Navigation to Search Engines	49	43.75%
No Multiple Frames	112	100.00%
No Expanded TOC	112	100.00%
No Unnecessary Animation	88	78.57%
No Flashing Text	111	99.11%
No Banners	108	96.43%
No Multi-Colored/Brightly Colored Text	102	91.07%

Table 7. Design Criteria

Criteria for design of the school library media center web sites and the percentage of web sites from the sample that met them are shown in Table 7 above. Special software, multiple frames, and expanded table of contents, three of the design criteria under analysis, were not present on the media center web sites in this sample. The small number of web sites meeting the "navigation to next" and "navigation to previous" criteria can be partially explained by the use of a table of contents.

	F	Sig.
No special software		
Page loads <30 sec	2.108	.126
Photos thumbnailed or no photos	.670	.514
Text chunked	.074	.929
To previous	1.102	.336
To next	1.102	.336
To home	1.586	.209
Index/TOC	1.529	.221
To top	5.640	.005
Search engines	1.141	.323
No multi frames		
No expanded TOC		
No unnecessary animation	.578	.562
No flashing text	1.057	.351
No banners	.157	.855
No multi or brightly colored text	.514	.599
Design index	2.170	.119

Table 8. ANOVA Test Values for Design Criteria and Index

ANOVA tests performed determined whether statistical significance exists for the use of design criteria by the different author types. The corresponding values are shown above in Table 8. Statistical significance at the .05 level or less was found for navigation to the top of page (.005). No other items in the design category were found to have statistical significance.

The mean overall score for the design index was 10.196. Scores for unknown authorship, non-media specialist authorship, and media specialist authorship were 9.971, 10.0, and 10.621 respectively. The hypothesis that the media specialist web sites would have a better design than those designed by non-media specialists as indicated by a higher mean score on the design scale is supported.

The design criteria and authorship were analyzed using the Tukey HSD test. Significance was shown for navigation to top of page between the media specialist

authored web sites and those where authorship was unknown (.007) and those authored by non-media specialists (.020).

A positive correlation was found between the design index and authorship with a Pearson's R^2 of .025, which means that only 2.5% of the variance in the design index is explained by authorship.

The statistical tests performed for the design criteria show that the web sites designed by media specialist have a better design than those created by non-media specialists. A small positive correlation exists between the design index and authorship.

ACID scale

The hypothesis for the overall ACID scale is that media specialists do a poor overall job, as do non-media specialists, of promoting the media center and specialist on the Internet as indicated by a mean score of less than 22.0 on the overall ACID scale.

An ANOVA test was run for the promotional, or ACID, scale. The ACID scale showed significance at the .001 level.

The mean overall score for the ACID scale was 17.06. Mean scores for each author type were 15.57, 16.53, and 19.05 for author unknown web sites, non-media specialist web sites, and media specialist web sites respectively. The hypothesis that these web sites would do a poor overall job of promoting the media center and specialist on the Internet as indicated by a mean score of less than 22.0 on the ACID scale is supported.

To further analyze the relationship between authorship and the overall ACID scale, a Tukey HSD test was performed. The author groups that showed significance for

the ACID scale were media specialist authored with author unknown (.001) and media specialist authored with non-media specialist authored (.011).

A positive correlation was found between the ACID scale and authorship with a Pearson's R^2 of .106. In other words, 10.6% of the variance in the scale score can be explained by authorship.

The statistical tests performed for the ACID scale show that media specialist and non-media specialist authored web sites do a poor overall job of promoting the media center and the specialist. There is a positive correlation between the ACID scale and authorship.

LIMITATIONS OF THE STUDY

The sample frame used may or may not be representative of the entire K-12 public school population. The Hot List, formerly published at http://rrnet.com/~gleason and relocated to http://teacher-pd.classroom.com/library/states.asp as of June 26, 2000, is compiled from URLs submitted by teachers, principals, media specialists, or other community members. The sites were not examined prior to being listed in the directory. Any bias that may exist in this sample frame probably exists in favor of promotion. Thus, as a result of this possible bias, the presentation of results for promotion on the sample web sites may be artificially high and cannot be generalized to the entire K-12 public school population.

Although an attempt was made to analyze all of the criteria that go into a school library media center web site, it is inevitable that some criteria were inadvertently missed.

Poe's *Content and Design Analysis of School Library Web Home Pages* provides further analysis of the content and design of school library web sites.

Due to the self-publishing nature of the Hot List directory, some of the web sites randomly selected were private schools. Due to the difficulty in telling the difference between public and private school web sites upon cursory examination, no attempt was made to control for this possibility. Private school media center web sites that appeared in the random sample were evaluated in the same manner as public school media center web sites with the idea that difference in school type would not be statistically significant.

In general, performing a content analysis virtually ensures reliability of the data. When using data from the World Wide Web, however, this is not always the case. As a result, some of the data analyzed in this study may have been moved, altered, or deleted after publication of the study. In fact, some of web sites had been moved or discontinued from the time of the sample drawing on June 7th to the time of their analysis on June 17 and18, 2000 and were not included in the final sample. The author cannot, therefore, guarantee the future reliability of the data gathered here but the underlying principles remain unchanged.

This research was conducted during the months of June and July, a time in which schools are usually closed; a survey would not have been feasible during this time period. The small R^2 values found in the study, which indicate low levels of correlation, should be further investigated. In future studies, media specialists could be queried to determine whether they feel that the Internet is a good platform for promoting the school library

media center. Their knowledge of the criteria provided in this study and their level of computer knowledge could also be determined.

DISCUSSION OF FINDINGS AND RECOMMENDATIONS

Promotion of the media center and the media specialist is of great concern to media specialists. The Internet is one avenue for promotion that can also be used as a tool to teach information literacy. This study shows that school library media specialists do a better job of promotion on the Internet than do non-media specialists. In general, however, school library media center web sites are not being used as promotional tools for the media center or the specialist.

The media specialist is ultimately responsible for the content and design of the school library media center web site. While it is not advisable to allow students unsupervised development of the media center web site, media specialists may opt to recruit students to help them. Creation or revision of the media center's web site can serve as a lesson in information dissemination, which is one of the teaching goals of the school library media specialist.

CONCLUSION

This study analyzed 120 school library media center web sites to determine whether the Internet is being used effectively to promote the school library media center. A secondary purpose for analyzing these web sites was to determine whether a media specialist authored web site is any better at promoting the media center than one authored by somebody else. The conclusion is that school library media center web sites do not

effectively promote the media center. In addition, the data show that media specialists tend to do a better job of promoting the media center on the Internet than non-media specialists.

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APPENDIX A

WEB SITE QUESTIONNAIRE

This questionnaire is designed to measure how well school library media center web sites meet specific advocacy, content, interactivity, and design (ACID) criteria. Please indicate that an item is present by placing a check or "X" in the box next to it. For our purposes, web site refers to the initial URL and any links connected to the URL. Links within the domain are to be considered part of the web site and to be evaluated as such. For example, if the URL for the school library media web site being evaluated is http://www.artfuldodger.k12.xx.us/media.html, any links to web pages within the http://www.artfuldodger.k12.xx.us/ domain are considered part of the web site and evaluated. Links to web sites outside the domain are only to be considered in terms of whether or not they are present and not in terms of whether they meet the specified criteria. See Appendix B for a definition of the variables.

Criteria		Point Value
	Advocacy	
[ ]	Promotes the media center's services and products	(1)
[ ]	Promotes the media specialist as information professional	(1)
[ ]	Media specialist's job description is available	(1)
[ ]	A biography of the media specialist is provided	(1)
[ ]	Selected media center assignments are made available	(1)
[ ]	Media specialist talents, education, experience are provided	(1)
[ ]	Information, photographs of the media center "team" is included	(1)
[ ]	There is a picture of the media specialist	(1)
[ ]	Professional work and/or publications are included	(1)
[ ]	Feedback about the media center program is provided	(1)
	Content	
[ ]	Access to the online catalog is provided	(1)
[ ]	A schedule of upcoming events is provided	(1)
[ ]	Provides Internet directories/links to external websites	(1)
[ ]	Links to outside sites are organized in some way	(1)
[ ]	Provides access to library publications such as reading lists, policies and procedures	(1)
	Serves as a bridge to the community	
[ ]	parent resources are provided	(1)
[ ]	community member resources are provided	(1)
[ ]	info about volunteering, donating is provided	(1)
[ ]	teacher resources are provided	(1)
[ ]	student resources are provided	(1)
[ ]	Introduces visitors to the media center	(1)
[ ]	Facilitates teacher/librarian collaboration	(1)
[ ]	Was last updated less than 2 months ago	(1)
[ ]	Text makes sense when read aloud	(1)

Interactivity level on main school library media center page

[ ]	None	(0)
[ ]	Contact name and full mailing address	(1)
[ ]	Contact name and email address	(2)
[ ]	Online form(s) for feedback	(3)
[ ]	Chat forum	(4)

Design

[ ]	No special software is required to load initial web page	(1)
[ ]	Web page loads within 30 seconds	(1)
[ ]	Photographs are thumbnailed or there are no photos	(1)
[ ]	Text is reduced to chunks (no more than 2 "page downs")	(1)
	Navigation provided	
[ ]	To previous page	(1)
[ ]	To next page	(1)
[ ]	To home page	(1)
[ ]	To top of page	(1)
[ ]	To search engines	(1)
[ ]	Indexes, tables of contents available	(1)
[ ]	Multiple frames avoided	(1)
[ ]	Expanded table of contents avoided	(1)
	Graphics limited	
[ ]	No gratuitous animation is used	(1)
[ ]	No flashing text is used	(1)
[ ]	No banners are displayed	(1)
[ ]	No multi-colored or brightly colored text is used	(1)

APPENDIX B

CRITERIA DEFINITIONS

The criteria used in analyzing the school library media center web sites are shown below. The definitions the author used during analysis are included.

ADVOCACY

Promotes the media center services and products (Kirchner, 845-6) – includes information about the collection, the environment, and the lessons that are taught

Promotes the media specialist as information professional (Kirchner, 845-6) – the media specialist is shown as an individual who promotes reading, writing, and information literacy

Media specialist's job description is available (Abram, 88; Miller) – the job duties of the media specialist are available

A biography of the media specialist is provided (Abram, 88) – shows the media specialist as a person with interests outside of the media center

Selected media center assignments are made available (Abram, 88) – includes information about forthcoming lessons and past lessons taught in the media center

Media specialist's talents, education, experience are provided (Abram, 88) – the media specialist may enjoy other activities and would talk about them here; education includes such information as where the media specialist went to school and any seminars or conferences that have been attended

Information, photographs of the media center team included (Abram, 88) – running a media center is rarely a one-person operation; this criterion measures whether the web site has pictures and information about the clerical staff and/or volunteers who help out in the media center

There is a picture of the media specialist (Abram, 88) – the media specialist's photograph is present; although it is preferably thumbnailed, credit is given for its presence even if it is not

Professional work and/or publications included (Abram, 88) – occasionally, the media specialist will write a book or have an article published in a journal; this criterion measures whether information about such publications is provided

Feedback about the media center program is provided (Abram, 88) – any feedback, kudos or otherwise, received about the media center program

CONTENT

Access to the online catalog is provided (Carpenter, 64; Clyde, 287-95; Dodsworth, 321) – the media center's computerized catalog is made available on the web site

A schedule of upcoming events is provided (Carpenter, 64; Dodsworth, 321) – a calendar of media center activities including lessons, meetings, and other activities

Provides Internet directories/links to external websites (Carpenter, 64; Dodsworth, 321) – addresses to web pages that are hyperlinked for ease of access

Links to outside sites are organized in some way – the web pages are placed in some type of order; they are alphabetical, topical, or grouped by user type

Provides access to library publications such as reading lists, policies, and procedures (Carpenter, 64; Dodsworth, 321) – items published by the media center or the specialist; this includes such things as compiled reading lists, policies, and procedures

Parent resources are provided (adapted from Holly) – sources for parenting, child development, and information about how parents can get involved in their children's education

Community resources are provided (adapted from Holly) – includes information about the community and links from community web sites such as public libraries and corporate sponsors

Info about volunteering, donating is provided – information about how to volunteer time to work for the media center or how to donate items to the media center

Teacher resources are provided (McCarron, 27) – includes sample lesson plans and links to items of interest for teachers' professional development

Student resources are provided (Weiss, 25) – homework help, including web sites for research, can be found here; may also include instructions on the use of software, search engines, or other informational tools

Introduces visitors to the media center (adapted from Holly) – may include photographs of the media center and information about its operation such as hours and collection information

Facilitates teacher/librarian collaboration (McCarron, 27) – an online calendar may be provided for teachers to sign up for media center resources; the media specialist is presented as available to collaborate on lesson plans

Was last updated less than 2 months ago (Holtz, 274) – the last update date is shown and within 2 months of the current date

Text makes sense when read aloud (Holtz, 274; Sammons, 42) – when you read the web page aloud, it makes sense; hyperlinks and images do not interfere with the reading of the text

INTERACTIVITY

Contact name and full mailing address – contains the name of the media specialist and the mailing address of the school

Contact name and email address (Holtz, 274-5) – contains the name of the webmaster and/or the media specialist and an email address; a hyperlink, although preferable, is not required

Online form(s) for feedback (Cooley, 41; de Saez, 10; Morgan, 50) – any type of form that allows the user to fill in information and submit it to the webmaster and/or the media specialist

Chat forum (Cooley, 41) – an interactive environment that allows real-time discussion of events, activities, and information provided by the media center

DESIGN

No special software is required to load initial web page – in order to load the web page, the user is not required to download any software such as Macromedia's Flash® or Adobe's Acrobat Reader®

Web page loads within 30 seconds (Sammons, 42-3) – the web page loads within 30 seconds from the moment of connection to the URL

Photographs thumbnailed or there are no photos – when photographs are present, they are thumbnailed so that download time is not severely affected by them

Text is reduced to chunks (no more than 2 "page downs") (Holtz, 274) – the text of the web page is presented in small pieces so that the user does not have to scroll down more than 2 pages of text

Navigation to previous, next, home, top of page (Holtz, 274) – navigation features allowing the user to move to the previous page, to the next page, to the home page, or to the top of the present page exist in either hypertext link form, graphic link form, or both.

Navigation to search engines (Holtz, 275) – access is provided to any external search engine on any one of the pages of the web site

Indexes, tables of contents available (Holtz, 275) – an index or table of contents is present; although its presence on every page and in the same location is preferable, it is not a requirement

Multiple frames avoided (Tenissara, 79) – when a frame environment is used, a frame does not open within another frame

Expanded table of contents avoided (Tenissara, 80) – when a table of contents is used, items are not subdivided into a new table of contents

No gratuitous animation is used – Holtz advises limitation of distracting elements (274-5); animation is considered to be unnecessary if it does not add value to the text that it is a part of; animation used as borders or horizontal bars to break up text are also considered to be unnecessary

No flashing text is used – this is another distracting element (Holtz, 274-5); flashing text is defined as text that alternates in color automatically

No banners are displayed – another distracting element (Holtz, 274-5), banners are advertisements placed in any position of a web page; they may rotate messages, be static, or be animated

No multi-colored or brightly colored text is used – multi-colored or brightly colored text is considered another distracting element (Holtz, 274-5); for this study, brightly colored was defined as any color that "hurts the eyes"

APPENDIX C

WEB SITE URLS FOR SAMPLE

ID#	URL
1	http://tmiquadra.tminet.org/~ps93/
2	http://www.bascomb.org/
3	http://www.okaloosa.k12.fl.us/edge/
4	http://www.concord.k12.nh.us/schools/rundlett/
5	http://www.southerndigital.com/bellehall/
6	http://www.spotsylvania.k12.va.us/bms/page2.htm
7	http://fayar.net/holcomb/home.html
8	http://www.sss.austin.tx.us/
9	http://www.Rickards.leon.k12.fl.us/
10	http://sedalia.k12.mo.us/
11	http://www.the-spa.com/ghs/ghs_site/ghspage.htm
12	http://scnc.hps.k12.mi.us/~hhs/
13	http://www.rsf.k12.ca.us/
14	http://www.oswego.org/ocsd-web/2kps.htm
15	http://www.georgetown.txed.net/benold/home.htm*
16	http://www.ursuline.org/
17	http://www.crews.org/
18	http://rmhs.dist214.k12.il.us/
19	http://www3.mcps.k12.md.us/schools/northwesths/
20	http://www.maisd.com/mcs/hsmedia/index.htm
21	http://btown.k12.ky.us/bes/
22	http://205.128.128.2/schools/hshs/hshs2.html
23	http://scnc.lsd.k12.mi.us/~ottomc1/
24	http://bonnette.deer-park.isd.tenet.edu/
25	http://www.n-polk.k12.ia.us/
26	http://www.mm.ocps.k12.fl.us/
27	http://marple.net/schools/worrall/
28	http://www.sd148.k12.id.us/
29	http://www.stlukes.new-canaan.ct.us/
30	http://www.ccsch.k12.nj.us/S/Cream/CreamSchool.html*
31	http://www.homework-central.com/schools/laurel5/main.html
32	http://www.bergen.orgedpartners/Leonia/lhs.hmpg.html
33	http://www.gnofn.org/~bfsenior/
34	http://www.sammamishhigh.com/
35	http://m21.sail.leon.k12.fl.us/
36	http://www.sd68.k12.il.us/schools/orchard/orchard.html
37	http://www.district125.k12.il.us/
38	http://www.volusia.k12.fl.us/schools/geomarks/index.htm
39	http://www.sugarcreek.k12.oh.us/Stephenbell/index2.htm
40	http://www.bhs.edu/
41	http://www.mesa.k12.az.us/jordan/
42	http://www2.corvallis.k12.or.us/schools/corvallis/index.htm
43	http://www.volusia.k12.fl.us/schools/nsbmiddle/
44	http://www.sowashco.k12.mn.us/cgjh/
45	http://picayuneschools.datastar.net/pmhs/

ID#	URL
46	http://www.d155.org/School%20Web%20Pages/about_cls_school.htm
47	http://www.ops.org/central/
48	http://middle.santarosa.k12.nm.us/middle/
49	http://www.rcbhs.org/Index.html
50	http://www.isd77.k12.mn.us/schools/franklin/franklin.html*
51	http://www.isd77.k12.mn.us/schools/eagle/eagle.html
52	http://www.coe.usu.edu/eb/
53	http://www.uinta6.k12.wy.us/WWW/Urie/Uriehome.html
54	http://www.rdale.k12.mn.us/lis/home.html
55	http://www.gnofn.org/~gkhs/
56	http://www.wggators.com/*
57	http://www.strato.net/~apms/
58	http://www.sabine.k12.la.us/mhjs/
59	http://www.punahou.edu/main2.html
60	http://korrnet.org/fms/
61	http://www.ksd.org/hhh/
62	http://www.lr.k12.nj.us/site/lenape/
63	http://www.eustace.org/
64	http://pirates.k12.ar.us/cre/index.htm
65	http://mcsd.k12.ca.us/franklin/index.html
66	http://www.resa.net/plymouth-canton/lowell/
67	http://www.lz95.lake.k12.il.us/mss/index.html
68	http://cnug.clackesd.k12.or.us/cedaroak/index.html
69	http://www.volusia.k12.fl.us/schools/atlantic/
70	http://www.damien.edu/
71	http://www.bishopstang.com/
72	http://www.clifton.k12.nj.us/chs.html
73	http://www.spart5.k12.sc.us/schools/rres/index.html
74	http://rbvhs.vusd.k12.ca.us/
75	http://www.mcgill.pvt.k12.al.us/
76	http://www.mhs.k12.la.us/main.htm
77	http://rebelweb.anoka.k12.mn.us/rebel/parent/parent.html
78	http://www.bridlemile.org/
79	http://bms.bemidji.k12.mn.us/
80	http://www.nfld.k12.mn.us/hs/default.html
81	http://www.greenville.k12.sc.us/bereah/
82	http://www.fhs.weber.k12.ut.us/*
83	http://www.mvcsc.k12.in.us/mvhs/index.html
84	http://scnc.waverly.k12.mi.us/~hschool/
85	http://www.ua-ohio.net/site/toc/*
86	http://www.lincoln.leon.k12.fl.us/
87	http://www.mishawaka.k12.in.us/mhs_files/mhs.htm
88	http://k12.albemarle.org/monticello/*
89	http://www.be.wednet.edu/Hs/hs99.htm
90	http://www.hopkins.k12.mn.us/pages/high/hhs.html
91	http://www.inwave.com/schools/Van_Buren/
92	http://www.mv.com/org/mmhs/
93	http://www.newarka.edu/
94	http://www.rcs.rang.k12.va.us/schools/mrms/Directory.htm
95	http://www.wvc.net/~jax1/clarkindex.htm
96	http://www.volusia.k12.fl.us/schools/silversands/

ID#	URL
97	http://www.northmont.k12.oh.us/hs/index.html
98	http://www.volusia.k12.fl.us/schools/ortona/
99	http://www.cherryhill.k12.nj.us/rims/
100	http://nths.newtrier.k12.il.us/
101	http://er9.org/hkms/
102	http://www.watauga.k12.nc.us/gv/
103	http://www.great-valley.k12.pa.us/gvhs/index.html
104	http://www.bmrsd.net/
105	http://www.paradisedirect.com/pusd/phs/index.html
106	http://www.paterson.k12.nj.us/~schools/mlk/
107	http://www.isd77.k12.mn.us/schools/jefferson/jefferson.html*
108	http://csd1.sesc.k12.ar.us/njh/njhmain.htm
109	http://www.rdale.k12.mn.us/noe/index.htm
110	http://www.roanoke.k12.va.us/raleigh/home.html
111	http://www.valleycity.k12.nd.us/WashingtonElementary/WashingtonSchoolPage.htm
112	http://www.springfield.k12.pa.us/
113	http://www.rdale.k12.mn.us/lve/
114	http://www.masconomet.org/
115	http://bwscampus.com/
116	http://www.jordan.palo-alto.ca.us/
117	http://www.edmond.k12.ok.us/schools/north/
118	http://cchs.wccs.k12.in.us/
119	http://www2.mdek12.state.ms.us/7500/wwwroot1/redwood/redwood.htm
120	http://blh.k12.mn.us/elem/index.html

* not active at the time of analysis and not included in final sample

APPENDIX D

DATA COLLECTION RESULTS FOR ADVOCACY INDEX

Advocacy												
Author Type	ID#	Promotes MC services and products	Promotes MS as information professional	MS' job descriptn	MS' biography	MC assign-ments	MS talents, exp. & educ.	Informs about MC team	Photo of MS	Professional publications of MS	Feedback about MC program	Score
Unknown	1	Yes	Yes	No	No	No	No	No	No	No	No	2
Non-MS	2	No	No	No	No	No	No	No	No	No	No	0
MS	3	Yes	No	No	No	No	No	No	No	No	No	1
MS	4	Yes	Yes	No	No	No	Yes	No	No	Yes	No	4
Non-MS	5	No	No	No	No	No	No	No	No	No	No	0
Unknown	6	No	No	No	No	No	No	No	No	No	No	0
Non-MS	7	Yes	No	No	No	No	No	No	No	No	No	1
MS	8	No	No	No	No	No	No	No	No	No	No	0
Unknown	9	No	No	No	No	No	No	No	No	No	No	0
MS	10	No	No	No	No	No	No	No	No	No	No	0
Non-MS	11	Yes	No	No	No	No	No	No	No	No	No	1
Unknown	12	Yes	No	No	No	No	No	No	No	No	No	1
Non-MS	13	No	No	No	No	No	No	No	No	No	No	0
MS	14	No	No	No	No	No	No	No	No	No	No	0
	15	Missing data										
Non-MS	16	Yes	Yes	No	No	No	No	No	No	No	No	2
Non-MS	17	Yes	No	No	No	No	No	No	No	No	No	1
Non-MS	18	Yes	No	No	No	No	No	No	No	No	No	1
Non-MS	19	Yes	Yes	No	No	No	No	No	No	No	No	2
Non-MS	20	Yes	No	No	No	No	No	No	No	No	No	1
Unknown	21	Yes	No	No	No	No	No	No	No	No	No	1
Unknown	22	No	No	No	No	No	No	No	No	No	No	0
MS	23	Yes	No	No	No	No	No	No	No	No	No	1

Advocacy												
Author Type	ID#	Promotes MC services and products	Promotes MS as information professional	MS' job descriptn	MS' biography	MC assign-ments	MS talents, exp. & educ.	Informs about MC team	Photo of MS	Professional publications of MS	Feedback about MC program	Score
MS	24	No	No	No	No	No	No	No	No	No	No	0
MS	25	No	Yes	Yes	No	No	No	No	Yes	No	No	3
MS	26	Yes	No	No	No	No	No	No	No	No	No	1
MS	27	No	No	No	No	No	No	No	No	No	No	0
Non-MS	28	Yes	No	No	No	No	No	No	No	No	No	1
MS	29	No	No	No	No	No	No	No	No	No	No	0
	30	Missing data										
MS	31	Yes	No	No	No	No	No	No	No	No	No	1
Unknown	32	Yes	No	No	No	No	No	No	No	No	No	1
Unknown	33	No	No	No	No	No	No	No	No	No	No	0
MS	34	Yes	No	No	No	No	No	No	No	No	No	1
MS	35	Yes	No	No	No	No	No	No	No	No	No	1
MS	36	Yes	No	No	No	No	No	No	No	No	No	1
MS	37	No	No	No	No	No	No	No	No	No	No	0
MS	38	Yes	No	No	No	No	No	No	No	No	No	1
Unknown	39	Yes	No	No	No	No	No	No	No	No	No	1
Non-MS	40	Yes	No	No	No	No	No	No	No	No	No	1
Non-MS	41	No	No	No	No	No	No	No	No	No	No	0
Non-MS	42	No	No	No	No	No	No	No	No	No	No	0
Non-MS	43	No	No	No	No	No	No	No	No	No	No	0
Unknown	44	Yes	No	No	No	No	No	No	No	No	No	1
Non-MS	45	Yes	No	No	No	No	No	Yes	Yes	No	No	3
Unknown	46	Yes	No	No	No	No	No	No	No	No	No	1
Non-MS	47	Yes	No	No	No	No	No	No	No	No	No	1
Unknown	48	Yes	No	No	No	No	No	No	No	No	No	1
Non-MS	49	Yes	No	No	No	No	No	No	No	No	No	1
	50	Missing data										
MS	51	Yes	Yes	No	No	No	No	Yes	Yes	No	No	4
Non-MS	52	No	No	No	No	No	No	No	No	No	No	0
Unknown	53	No	No	No	No	No	No	No	No	No	No	0
Unknown	54	No	No	No	No	No	No	No	No	No	No	0

Advocacy												
Author Type	ID#	Promotes MC services and products	Promotes MS as information professional	MS' job descriptn	MS' biography	MC assign-ments	MS talents, exp. & educ.	Informs about MC team	Photo of MS	Professional publications of MS	Feedback about MC program	Score
Non-MS	55	Yes	No	No	No	No	No	No	No	No	No	1
	56	Missing data										
Non-MS	57	No	No	No	No	No	No	No	No	No	No	0
MS	58	Yes	No	No	No	No	No	No	No	No	No	1
Non-MS	59	Yes	No	No	No	No	No	No	No	No	No	1
Unknown	60	Yes	No	No	No	No	No	No	No	No	No	1
Unknown	61	No	No	No	No	No	No	No	No	No	No	0
Non-MS	62	No	No	No	No	No	No	No	No	No	No	0
Unknown	63	Yes	No	No	No	No	No	No	No	No	No	1
Non-MS	64	No	No	No	No	No	No	No	No	No	No	0
MS	65	Yes	No	No	No	No	No	No	No	No	No	1
MS	66	Yes	Yes	No	No	No	No	No	No	No	No	2
Non-MS	67	Yes	Yes	Yes	No	No	No	Yes	No	No	No	4
MS	68	Yes	Yes	No	No	No	No	No	No	No	No	2
Non-MS	69	Yes	Yes	No	No	No	No	No	No	No	No	2
MS	70	Yes	Yes	No	No	No	No	No	Yes	No	No	3
Unknown	71	No	No	No	No	No	No	No	No	No	No	0
MS	72	No	No	No	No	No	No	No	No	No	No	0
MS	73	No	No	No	No	No	No	No	No	No	No	0
Non-MS	74	No	No	No	No	No	No	No	No	No	No	0
Non-MS	75	No	No	No	No	No	No	Yes	Yes	No	No	2
Non-MS	76	No	No	No	Yes	No	No	No	No	No	No	1
Non-MS	77	Yes	No	No	No	No	No	Yes	Yes	No	No	3
MS	78	No	No	No	Yes	No	No	No	No	No	No	1
Non-MS	79	No	No	No	No	No	No	No	No	No	No	0
Unknown	80	No	No	No	No	No	No	No	No	No	No	0
MS	81	Yes	No	No	No	No	No	No	No	No	No	1
	82	Missing data										
Unknown	83	No	No	No	No	No	No	No	No	No	No	0
Unknown	84	Yes	No	No	No	No	No	No	No	No	No	1
	85	Missing data										

Advocacy												
Author Type	ID#	Promotes MC services and products	Promotes MS as information professional	MS' job descriptn	MS' biography	MC assign-ments	MS talents, exp. & educ.	Informs about MC team	Photo of MS	Professional publications of MS	Feedback about MC program	Score
Non-MS	86	Yes	No	No	No	No	No	Yes	Yes	No	No	3
Non-MS	87	No	No	No	No	No	No	No	No	No	No	0
	88	Missing data										
Unknown	89	No	No	No	No	No	No	No	No	No	No	0
Unknown	90	No	No	No	No	No	No	Yes	Yes	No	No	2
MS	91	Yes	No	No	No	No	No	No	No	No	No	1
MS	92	Yes	No	No	No	No	No	No	No	No	No	1
Non-MS	93	No	No	No	No	No	No	No	No	No	No	0
MS	94	No	No	No	No	No	No	No	No	No	No	0
Unknown	95	No	No	No	No	No	No	No	No	No	No	0
Non-MS	96	No	No	No	No	No	No	No	No	No	No	0
Unknown	97	Yes	No	No	No	No	No	Yes	Yes	No	No	3
MS	98	Yes	No	No	No	No	No	No	No	No	No	1
MS	99	Yes	Yes	No	No	No	No	No	No	No	No	2
Non-MS	100	Yes	No	No	No	No	No	No	No	No	No	1
Unknown	101	Yes	No	No	No	No	No	No	No	No	No	1
Non-MS	102	Yes	Yes	No	Yes	No	No	No	No	No	No	3
Unknown	103	Yes	No	No	No	No	No	No	No	No	No	1
Unknown	104	Yes	No	No	No	No	No	No	No	No	No	1
MS	105	Yes	No	No	No	No	No	No	Yes	No	No	2
Unknown	106	No	Yes	No	No	No	No	Yes	Yes	No	No	3
	107	Missing data										
MS	108	Yes	No	No	No	No	No	No	No	No	No	1
Unknown	109	No	No	No	No	No	No	No	No	No	No	0
Non-MS	110	No	No	No	No	No	No	No	No	No	No	0
Unknown	111	No	No	No	No	No	No	No	Yes	No	No	1
MS	112	Yes	No	No	No	No	No	No	No	No	No	1
Unknown	113	No	No	No	No	No	No	No	No	No	No	0
Non-MS	114	Yes	No	No	No	No	No	No	No	No	No	1
MS	115	Yes	No	No	No	No	No	No	No	No	No	1
Unknown	116	No	No	No	No	No	No	Yes	Yes	No	No	2

Advocacy												
Author Type	ID#	Promotes MC services and products	Promotes MS as information professional	MS' job descriptn	MS' biography	MC assign-ments	MS talents, exp. & educ.	Informs about MC team	Photo of MS	Professional publications of MS	Feedback about MC program	Score
Unknown	117	Yes	No	No	No	No	No	No	No	No	No	1
Non-MS	118	No	No	No	No	No	No	No	No	No	No	0
Unknown	119	No	No	No	No	No	No	No	No	No	No	0
MS	120	Yes	No	No	No	No	No	No	No	No	No	1

APPENDIX E

DATA COLLECTION RESULTS FOR CONTENT INDEX

	Content														
ID#	OPAC	Sched	Links	Links Organized	Library Publications	Parent Resources	Community Resources	Volunteer/ Donate Info	Teacher Resources	Student Resources	Introduces the Media Center	Facilitates Collaboration	Is Current	Text Flows	Score
1	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Yes	2
2	No	No	No	No	No	No	No	No	No	No	No	No	No	No	0
3	No	No	Yes	No	No	No	No	No	No	No	Yes	No	No	Yes	3
4	No	No	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	No	No	Yes	8
5	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No	No	Yes	5
6	No	No	No	No	No	No	No	No	No	No	No	No	No	No	0
7	Yes	No	Yes	Yes	No	No	No	No	Yes	Yes	Yes	No	No	Yes	7
8	Yes	No	Yes	Yes	No	No	No	No	No	Yes	No	Yes	No	Yes	6
9	No	No	Yes	Yes	No	No	No	No	No	Yes	No	No	No	Yes	4
10	No	No	Yes	Yes	Yes	No	No	No	Yes	Yes	No	No	No	Yes	6
11	No	No	Yes	Yes	No	No	No	No	Yes	Yes	Yes	No	No	Yes	6
12	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Yes	2
13	No	No	Yes	Yes	No	No	No	No	No	Yes	No	No	No	Yes	4
14	Yes	No	Yes	Yes	No	No	No	No	No	Yes	No	No	No	Yes	5
15	Missing data														
16	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	No	No	No	Yes	9
17	Yes	No	Yes	Yes	Yes	No	Yes	No	No	Yes	No	No	No	Yes	7
18	Yes	No	Yes	Yes	No	No	Yes	No	No	Yes	No	No	Yes	Yes	7
19	No	No	Yes	Yes	No	No	No	No	Yes	Yes	Yes	No	Yes	Yes	7
20	No	No	Yes	Yes	Yes	No	Yes	No	Yes	Yes	No	No	No	Yes	7
21	Yes	No	Yes	Yes	Yes	No	Yes	No	Yes	Yes	No	Yes	No	Yes	9
22	No	No	No	No	No	No	Yes	No	No	No	No	No	No	Yes	2
23	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Yes	2
24	No	No	No	No	Yes	No	No	No	No	Yes	No	No	No	Yes	3

	Content														
ID#	OPAC	Sched	Links	Links Organized	Library Publications	Parent Resources	Community Resources	Volunteer/ Donate Info	Teacher Resources	Student Resources	Introduces the Media Center	Facilitates Collaboration	Is Current	Text Flows	Score
25	Yes	No	Yes	Yes	Yes	No	No	No	Yes	Yes	Yes	Yes	No	Yes	9
26	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Yes	2
27	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Yes	2
28	No	No	Yes	Yes	Yes	No	No	No	Yes	Yes	Yes	No	No	Yes	7
29	No	No	No	No	No	No	No	No	No	No	No	No	No	Yes	1
30	Missing data														
31	No	No	No	No	No	No	No	Yes	No	No	No	No	Yes	Yes	3
32	No	No	Yes	Yes	Yes	No	No	No	No	Yes	No	No	Yes	Yes	6
33	No	No	Yes	Yes	No	No	No	No	No	Yes	No	No	No	Yes	4
34	No	No	Yes	Yes	Yes	No	No	No	No	Yes	No	No	No	Yes	5
35	No	No	Yes	Yes	Yes	No	Yes	No	No	Yes	No	No	No	Yes	6
36	No	No	Yes	Yes	No	No	No	No	Yes	Yes	Yes	No	Yes	Yes	7
37	Yes	No	Yes	Yes	Yes	No	No	No	No	Yes	Yes	No	Yes	Yes	8
38	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Yes	2
39	Yes	No	Yes	Yes	No	No	No	No	No	Yes	No	No	Yes	Yes	6
40	No	No	Yes	Yes	Yes	No	Yes	No	No	Yes	Yes	No	No	Yes	7
41	No	No	Yes	Yes	No	No	No	No	No	Yes	No	No	No	No	3
42	No	No	Yes	Yes	Yes	No	Yes	No	No	Yes	No	No	Yes	Yes	7
43	No	No	No	No	No	No	No	No	No	No	No	No	No	No	0
44	No	No	Yes	Yes	Yes	No	No	No	Yes	Yes	No	No	No	Yes	6
45	No	No	No	No	No	No	No	No	No	No	Yes	No	No	No	1
46	No	No	Yes	Yes	Yes	No	No	No	Yes	Yes	No	No	Yes	Yes	7
47	No	No	Yes	Yes	Yes	No	Yes	No	Yes	Yes	No	Yes	No	Yes	8
48	No	No	No	No	No	No	Yes	No	No	No	Yes	No	No	Yes	3
49	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Yes	2
50	Missing data														
51	No	No	No	No	No	No	No	No	No	No	Yes	No	No	No	1
52	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Yes	2
53	No	No	Yes	Yes	No	No	No	No	No	No	No	No	No	Yes	3
54	No	No	Yes	Yes	No	No	No	No	No	Yes	No	No	No	Yes	4
55	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Yes	2
56	Missing data														

Content															
ID#	OPAC	Sched	Links	Links Organized	Library Publications	Parent Resources	Community Resources	Volunteer/ Donate Info	Teacher Resources	Student Resources	Introduces the Media Center	Facilitates Collaboration	Is Current	Text Flows	Score
57	No	No	No	No	No	No	No	No	No	No	No	No	No	No	0
58	No	No	Yes	Yes	No	No	No	No	No	Yes	Yes	No	No	Yes	5
59	No	No	Yes	Yes	No	No	No	No	Yes	Yes	Yes	No	No	Yes	6
60	No	No	No	No	No	No	No	No	No	No	No	No	No	Yes	1
61	No	No	Yes	Yes	No	No	No	No	No	Yes	No	No	Yes	Yes	5
62	No	No	Yes	Yes	No	No	No	No	No	Yes	No	No	No	Yes	4
63	No	No	Yes	Yes	No	No	No	No	No	No	Yes	No	No	Yes	4
64	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Yes	2
65	No	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes	Yes	No	Yes	Yes	9
66	No	No	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	No	Yes	Yes	9
67	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Yes	2
68	No	No	Yes	Yes	No	No	Yes	No	No	No	Yes	No	Yes	Yes	6
69	No	No	No	No	No	No	Yes	No	No	No	Yes	No	No	Yes	3
70	Yes	No	Yes	Yes	Yes	No	No	No	Yes	Yes	Yes	No	Yes	Yes	9
71	No	No	No	No	No	No	No	No	No	Yes	No	No	Yes	Yes	3
72	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No	Yes	Yes	6
73	No	Yes	Yes	Yes	No	No	No	No	No	Yes	Yes	No	No	Yes	6
74	No	No	Yes	Yes	No	No	No	No	No	Yes	Yes	No	Yes	Yes	6
75	No	No	Yes	Yes	No	No	Yes	No	No	Yes	No	No	No	Yes	5
76	No	No	Yes	Yes	No	No	No	No	No	Yes	Yes	No	Yes	Yes	6
77	No	No	Yes	Yes	No	No	No	No	No	No	Yes	No	No	Yes	4
78	No	No	Yes	Yes	No	No	No	Yes	Yes	Yes	Yes	No	No	Yes	7
79	No	No	Yes	No	No	No	No	No	No	Yes	Yes	No	Yes	No	4
80	No	No	No	No	Yes	No	No	No	No	Yes	Yes	No	No	Yes	4
81	No	No	Yes	Yes	No	No	No	No	Yes	Yes	Yes	No	No	Yes	6
82	Missing data														
83	No	No	Yes	Yes	No	No	No	No	No	Yes	Yes	No	No	Yes	5
84	No	No	No	No	No	No	No	No	No	No	No	No	Yes	Yes	2
85	Missing data														
86	No	No	No	No	Yes	No	No	No	No	Yes	Yes	No	No	Yes	4
87	No	No	Yes	No	Yes	No	No	No	Yes	Yes	No	No	No	Yes	5
88	Missing data														

Content															
ID#	OPAC	Sched	Links	Links Organized	Library Publications	Parent Resources	Community Resources	Volunteer/ Donate Info	Teacher Resources	Student Resources	Introduces the Media Center	Facilitates Collaboration	Is Current	Text Flows	Score
89	No	No	Yes	Yes	No	Yes	No	No	Yes	Yes	No	No	No	Yes	6
90	No	No	Yes	Yes	Yes	No	No	No	No	No	Yes	No	No	Yes	5
91	No	No	Yes	Yes	Yes	Yes	No	No	Yes	Yes	No	No	No	Yes	7
92	No	No	Yes	Yes	No	No	No	No	No	Yes	Yes	No	No	Yes	5
93	No	No	No	No	No	No	No	No	No	Yes	Yes	No	Yes	Yes	4
94	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No	No	Yes	5
95	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No	No	Yes	5
96	No	No	No	No	No	No	No	No	No	No	Yes	No	Yes	Yes	3
97	No	No	Yes	No	No	No	No	No	No	No	Yes	No	No	No	2
98	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Yes	2
99	No	No	Yes	Yes	Yes	No	No	No	Yes	Yes	Yes	No	No	Yes	7
100	No	No	Yes	Yes	Yes	No	No	No	No	Yes	Yes	No	No	Yes	6
101	No	No	Yes	Yes	No	Yes	No	No	Yes	Yes	Yes	No	No	Yes	7
102	No	No	No	No	Yes	No	No	No	No	Yes	Yes	No	No	Yes	4
103	No	No	Yes	Yes	Yes	No	No	No	No	Yes	Yes	No	No	Yes	6
104	Yes	No	Yes	No	No	No	No	No	No	No	Yes	No	No	Yes	4
105	No	No	Yes	Yes	No	Yes	No	No	Yes	Yes	Yes	No	No	Yes	7
106	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Yes	2
107	Missing data														
108	No	No	Yes	Yes	No	No	No	No	No	Yes	Yes	No	No	Yes	5
109	No	No	Yes	Yes	No	Yes	No	No	Yes	Yes	No	No	No	Yes	6
110	No	No	No	No	No	No	No	No	No	No	No	No	No	No	0
111	No	No	No	No	No	No	No	No	No	No	No	No	No	No	0
112	Yes	No	Yes	Yes	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	9
113	No	No	Yes	Yes	No	No	No	No	No	Yes	No	No	Yes	Yes	5
114	No	No	Yes	Yes	No	No	Yes	No	No	Yes	No	No	No	Yes	5
115	Yes	No	No	No	No	No	No	No	Yes	Yes	Yes	No	No	Yes	5
116	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	Yes	Yes	Yes	7
117	No	No	No	No	Yes	No	No	No	No	Yes	Yes	No	No	Yes	4
118	No	No	No	No	No	No	No	No	Yes	Yes	No	No	Yes	Yes	4
119	No	No	No	No	No	No	No	No	No	No	No	No	No	Yes	1
120	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No	No	Yes	5

APPENDIX F

DATA COLLECTION RESULTS FOR INTERACTIVITY INDEX

	Level of Interactivity					
ID#	No interactivity	Name and full mailing address	Name and email address	Form(s) for Feedback	Chat Forum	Score
1	No	No	Yes	No	No	2
2	Yes	No	No	No	No	0
3	No	No	Yes	No	No	2
4	No	No	Yes	No	No	2
5	No	No	Yes	No	No	2
6	Yes	No	No	No	No	0
7	No	Yes	No	Yes	No	4
8	No	Yes	Yes	No	No	3
9	Yes	No	No	No	No	0
10	No	No	Yes	No	No	2
11	Yes	No	No	No	No	0
12	Yes	No	No	No	No	0
13	No	No	Yes	No	No	2
14	No	Yes	Yes	No	No	3
15	Missing data					
16	No	No	Yes	No	No	2
17	No	No	Yes	No	No	2
18	No	Yes	No	No	No	1
19	Yes	No	No	No	No	0
20	Yes	No	No	No	No	0
21	Yes	No	No	No	No	0
22	Yes	No	No	No	No	0
23	No	No	Yes	No	No	2
24	No	No	Yes	No	No	2
25	No	Yes	Yes	No	No	3
26	No	No	Yes	No	No	2
27	Yes	No	No	No	No	0
28	No	Yes	No	No	No	1
29	No	No	Yes	No	No	2
30	Missing data					
31	Yes	No	No	No	No	0
32	Yes	No	No	No	No	0
33	Yes	No	No	No	No	0
34	No	No	Yes	No	No	2
35	No	No	Yes	No	No	2
36	No	Yes	Yes	No	No	3
37	No	No	Yes	No	No	2
38	Yes	No	No	No	No	0
39	No	Yes	No	No	No	1
40	Yes	No	No	No	No	0
41	Yes	No	No	No	No	0
42	Yes	No	No	No	No	0
43	No	Yes	Yes	No	No	3

Level of Interactivity						
ID#	No interactivity	Name and full mailing address	Name and email address	Form(s) for Feedback	Chat Forum	Score
44	Yes	No	No	No	No	0
45	No	No	Yes	No	No	2
46	No	No	Yes	No	No	2
47	No	No	Yes	No	No	2
48	Yes	No	No	No	No	0
49	No	Yes	Yes	No	No	3
50	Missing data					
51	No	Yes	Yes	No	No	3
52	No	Yes	Yes	No	No	3
53	Yes	No	No	No	No	0
54	No	No	Yes	No	No	2
55	No	No	Yes	No	No	2
56	Missing data					
57	No	Yes	No	No	No	1
58	No	No	Yes	No	No	2
59	No	Yes	Yes	No	No	3
60	Yes	No	No	No	No	0
61	Yes	No	No	No	No	0
62	Yes	No	No	No	No	0
63	Yes	No	No	No	No	0
64	Yes	No	No	No	No	0
65	No	No	Yes	No	No	2
66	No	Yes	Yes	No	No	3
67	Yes	No	No	No	No	0
68	No	No	Yes	No	No	2
69	Yes	No	No	No	No	0
70	No	No	Yes	No	No	2
71	Yes	No	No	No	No	0
72	No	No	Yes	No	No	2
73	No	No	Yes	No	No	2
74	No	No	Yes	No	No	2
75	Yes	No	No	No	No	0
76	No	No	Yes	No	No	2
77	Yes	No	No	No	No	0
78	No	Yes	Yes	No	No	3
79	Yes	No	No	No	No	0
80	Yes	No	No	No	No	0
81	No	No	Yes	No	No	2
82	Missing data					
83	No	No	Yes	No	No	2
84	No	Yes	No	No	No	1
85	Missing data					
86	No	No	Yes	No	No	2
87	No	Yes	Yes	No	No	3
88	Missing data					
89	No	Yes	Yes	No	No	3
90	No	No	Yes	No	No	2
91	Yes	No	No	No	No	0
92	No	No	Yes	No	No	2
93	No	No	Yes	No	No	2

	Level of Interactivity					
ID#	No interactivity	Name and full mailing address	Name and email address	Form(s) for Feedback	Chat Forum	Score
94	No	No	Yes	No	No	2
95	No	No	Yes	No	No	2
96	Yes	No	No	No	No	0
97	Yes	No	No	No	No	0
98	Yes	No	No	No	No	0
99	No	Yes	No	No	No	1
100	No	No	Yes	No	No	2
101	Yes	No	No	No	No	0
102	No	No	Yes	No	No	2
103	No	No	Yes	No	No	2
104	No	No	No	Yes	No	3
105	No	No	Yes	No	No	2
106	Yes	No	No	No	No	0
107	Missing data					
108	No	No	Yes	No	No	2
109	Yes	No	No	No	No	0
110	Yes	No	No	No	No	0
111	Yes	No	No	No	No	0
112	No	Yes	Yes	No	No	3
113	Yes	No	No	No	No	0
114	Yes	No	No	No	No	0
115	No	Yes	Yes	No	No	3
116	No	No	Yes	No	No	2
117	No	Yes	Yes	No	No	3
118	Yes	No	No	No	No	0
119	Yes	No	No	No	No	0
120	No	No	Yes	No	No	2

APPENDIX G

DATA COLLECTION RESULTS FOR DESIGN INDEX

	Design																
ID#	No spec soft	Page load <30 sec	Photos thumbnail /no photo	Text chunk	Navig prev	Navig next	Navig home	Index/ TOC	Navig top	Search engine	No multi frame	No expand TOC	No unnec. Anim.	No flash text	No banner	No multi- /brightly colored text	Score
1	Yes	Yes	Yes	No	No	No	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes	11
2	Yes	Yes	Yes	Yes	No	No	No	Yes	No	No	Yes	Yes	No	Yes	No	Yes	9
3	Yes	Yes	Yes	Yes	No	No	Yes	No	No	No	Yes	Yes	No	Yes	Yes	No	9
4	Yes	Yes	Yes	Yes	No	No	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	12
5	Yes	Yes	Yes	Yes	No	No	Yes	Yes	No	Yes	Yes	Yes	No	Yes	Yes	No	11
6	Yes	Yes	Yes	Yes	No	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	10
7	Yes	Yes	Yes	No	No	No	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	No	11
8	Yes	Yes	Yes	Yes	No	No	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	12
9	Yes	Yes	Yes	Yes	No	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	10
10	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	13
11	Yes	No	No	Yes	No	No	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	11
12	Yes	No	No	No	No	No	No	No	No	No	Yes	Yes	No	Yes	Yes	Yes	6
13	Yes	Yes	Yes	Yes	No	No	Yes	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	11
14	Yes	Yes	No	No	No	No	Yes	No	No	Yes	Yes	Yes	No	Yes	Yes	No	8
15	Missing data																
16	Yes	Yes	Yes	No	No	No	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	12
17	Yes	Yes	Yes	No	No	No	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes	No	10
18	Yes	No	Yes	No	No	No	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	10
19	Yes	No	Yes	No	No	No	No	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes	9
20	Yes	No	Yes	Yes	No	No	No	Yes	No	Yes	Yes	Yes	No	Yes	No	Yes	9
21	Yes	Yes	No	No	No	No	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes	10
22	Yes	Yes	No	Yes	No	No	No	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes	10
23	Yes	Yes	Yes	Yes	No	No	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes	12

Design																	
ID#	No spec soft	Page load <30 sec	Photos thumbnail /no photo	Text chunk	Navig prev	Navig next	Navig home	Index/ TOC	Navig top	Search engine	No multi frame	No expand TOC	No unnec. Anim.	No flash text	No banner	No multi-/brightly colored text	Score
24	Yes	Yes	Yes	Yes	No	No	Yes	No	No	No	Yes	Yes	No	Yes	Yes	Yes	10
25	Yes	Yes	Yes	No	No	No	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	11
26	Yes	No	No	No	No	No	Yes	No	No	No	Yes	Yes	Yes	Yes	Yes	No	7
27	Yes	Yes	Yes	No	No	No	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	11
28	Yes	Yes	Yes	Yes	No	No	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	12
29	Yes	No	Yes	No	No	No	No	No	No	No	Yes	Yes	No	Yes	No	Yes	6
30	Missing data																
31	Yes	Yes	Yes	No	No	No	Yes	No	No	No	Yes	Yes	Yes	Yes	Yes	No	9
32	Yes	Yes	Yes	Yes	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	No	10
33	Yes	Yes	Yes	No	No	No	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	11
34	Yes	Yes	Yes	Yes	No	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	13
35	Yes	No	Yes	Yes	No	No	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	11
36	Yes	No	No	Yes	No	No	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	10
37	Yes	Yes	Yes	No	No	No	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	12
38	Yes	Yes	Yes	Yes	No	No	No	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes	11
39	Yes	Yes	No	Yes	No	No	Yes	No	No	No	Yes	Yes	No	Yes	Yes	Yes	9
40	Yes	Yes	Yes	Yes	No	No	No	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes	11
41	Yes	No	Yes	No	No	No	Yes	No	No	No	Yes	Yes	No	Yes	Yes	Yes	8
42	Yes	Yes	Yes	Yes	No	No	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	13
43	Yes	Yes	Yes	Yes	No	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	10
44	Yes	Yes	No	No	No	No	No	No	No	Yes	Yes	Yes	No	Yes	Yes	Yes	8
45	Yes	Yes	No	No	No	No	Yes	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	9
46	Yes	Yes	Yes	No	No	No	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	11
47	Yes	Yes	No	Yes	No	No	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	11
48	Yes	Yes	Yes	Yes	No	No	Yes	No	No	No	Yes	Yes	No	Yes	Yes	Yes	10
49	Yes	No	No	No	No	No	No	Yes	No	No	Yes	Yes	No	Yes	Yes	Yes	7
50	Missing data																
51	Yes	Yes	No	Yes	No	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	9
52	Yes	Yes	Yes	Yes	No	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	10
53	Yes	Yes	Yes	Yes	No	No	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	12
54	Yes	Yes	Yes	No	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	10

Design																	
ID#	No spec soft	Page load <30 sec	Photos thumbnail /no photo	Text chunk	Navig prev	Navig next	Navig home	Index/ TOC	Navig top	Search engine	No multi frame	No expand TOC	No unnec. Anim.	No flash text	No banner	No multi- /brightly colored text	Score
55	Yes	Yes	Yes	Yes	No	No	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	No	12
56	Missing data																
57	Yes	Yes	Yes	Yes	No	No	No	Yes	No	No	Yes	Yes	No	Yes	Yes	Yes	10
58	Yes	Yes	Yes	Yes	No	No	Yes	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	11
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60	Yes	Yes	No	Yes	No	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	9
61	Yes	Yes	Yes	Yes	No	No	Yes	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	11
62	Yes	Yes	Yes	Yes	No	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	10
63	Yes	No	No	Yes	No	No	No	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes	9
64	Yes	Yes	Yes	Yes	No	No	No	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes	11
65	Yes	Yes	Yes	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	11
66	Yes	Yes	Yes	Yes	No	No	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	12
67	Yes	Yes	Yes	No	No	No	Yes	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	10
68	Yes	Yes	Yes	Yes	No	No	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	12
69	Yes	No	Yes	No	No	No	No	No	No	No	Yes	Yes	No	Yes	Yes	Yes	7
70	Yes	Yes	Yes	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	13
71	Yes	Yes	Yes	Yes	No	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	10
72	Yes	No	No	Yes	No	No	No	Yes	No	Yes	Yes	Yes	No	Yes	Yes	Yes	9
73	Yes	Yes	Yes	Yes	No	No	Yes	No	No	No	Yes	Yes	No	Yes	Yes	Yes	10
74	Yes	Yes	No	Yes	No	No	No	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes	10
75	Yes	No	No	No	No	No	No	Yes	No	Yes	Yes	Yes	No	Yes	Yes	Yes	8
76	Yes	No	No	Yes	No	No	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	10
77	Yes	No	No	Yes	No	No	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes	10
78	Yes	Yes	Yes	Yes	No	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	13
79	Yes	No	No	No	No	No	Yes	No	No	No	Yes	Yes	No	Yes	Yes	Yes	7
80	Yes	Yes	Yes	Yes	No	No	No	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes	11
81	Yes	No	Yes	No	No	No	Yes	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	10
82	Missing data																
83	Yes	Yes	Yes	Yes	No	No	Yes	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	11
84	Yes	Yes	No	No	No	No	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	10
85	Missing data																

	Design																
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86	Yes	No	No	Yes	No	No	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes	10
87	Yes	Yes	Yes	No	No	No	No	No	No	Yes	Yes	Yes	No	Yes	Yes	Yes	9
88	Missing data																
89	Yes	Yes	Yes	Yes	No	No	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes	No	11
90	Yes	No	No	No	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	8
91	Yes	Yes	Yes	No	No	No	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	11
92	Yes	Yes	No	No	No	No	No	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes	9
93	Yes	Yes	No	No	No	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	8
94	Yes	Yes	Yes	Yes	No	No	Yes	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	11
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96	Yes	No	No	No	No	No	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	9
97	Yes	No	No	No	No	No	Yes	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	8
98	Yes	Yes	Yes	Yes	No	No	Yes	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	11
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100	Yes	Yes	Yes	Yes	No	No	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	13
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104	Yes	Yes	Yes	Yes	No	No	No	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes	11
105	Yes	Yes	No	No	No	No	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	10
106	Yes	Yes	Yes	Yes	No	No	Yes	Yes	No	No	Yes	Yes	Yes	No	Yes	Yes	11
107	Missing data																
108	Yes	Yes	Yes	No	No	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	9
109	Yes	Yes	Yes	Yes	No	No	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	12
110	Yes	Yes	Yes	Yes	No	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	10
111	Yes	Yes	No	Yes	No	No	Yes	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	10
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113	Yes	Yes	Yes	Yes	No	No	No	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes	11
114	Yes	Yes	Yes	Yes	No	No	No	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes	11
115	Yes	Yes	Yes	Yes	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	11
116	Yes	Yes	Yes	Yes	No	No	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	12

Design																	
ID#	No spec soft	Page load <30 sec	Photos thumbnail /no photo	Text chunk	Navig prev	Navig next	Navig home	Index/ TOC	Navig top	Search engine	No multi frame	No expand TOC	No unnec. Anim.	No flash text	No banner	No multi- /brightly colored text	Score
117	Yes	Yes	Yes	No	No	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	9
118	Yes	Yes	Yes	Yes	No	No	No	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes	11
119	Yes	Yes	Yes	No	No	No	No	Yes	No	No	Yes	Yes	No	Yes	Yes	Yes	9
120	Yes	Yes	Yes	Yes	No	No	No	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes	11